REMARKS

Applicants request entry of the present amendments which conform the claims to U.S. practice. No new matter is being introduced by this Amendment as antecedent support is set forth in the original specification and in the original claims.

Prosecution on the merits is respectfully requested.

The Examiner is invited to contact Applicants' Attorneys at the below-listed telephone number regarding this Preliminary Amendment or otherwise regarding the present application.

If there are any charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

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VERSIONS WITH MARKS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Amended) Method for producing a coating for [the] absorption of neutrons generated in [the] nuclear reaction of radioactive materials, whereby, in a dispersion bath, at least part of a shielding element, [consisting of] comprising a base material, is coated on [its] appropriately predefined surfaces with a layer composed of an element with a high neutron capture cross-section and of an electrolytically or autocatalytically precipitable metallic element, while at least intermittently during the coating process a relative movement is generated between the respective surface to be coated and the dispersion bath which dispersion bath contains the element with the high neutron capture cross-section in [the] a form of an electrically conductive compound.

Claim 2 has been amended as follows:

2. (Amended) Method as in claim 1, [characterized in that] wherein the element with the high neutron capture cross-section is at least one of the elements of the group [comprising] consisting of boron, gadolinium, cadmium, samarium, europium and dysprosium.

Claim 3 has been amended as follows:

3. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the electrolytically or autocatalytically precipitable metallic element is one of the elements of the group [comprising] consisting of nickel, cadmium and copper.

Claim 4 has been amended as follows:

4. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the electrically conductive compound of the element with the high neutron capture cross-section is a metallic compound.

Claim 5 has been amended as follows:

5. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the electrically conductive compound of the element with the high neutron capture cross-section is a metal boride.

Claim 6 has been amended as follows:

6. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the element with the high neutron capture cross-section is in the form of an isotope with an augmented neutron capture cross-section.

Claim 7 has been amended as follows:

7. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the relative movement is generated by moving the object to be coated.

Claim 8 has been amended as follows:

8. (Amended) Method as in [one of the] claim[s] 1 [to 6], [characterized in that] wherein the relative movement is generated by blowing in a gas and/or by introducing ultrasound waves.

Claim 9 has been amended as follows:

9. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the coating is formed by chemical means.

Claim 10 has been amended as follows:

10. (Amended) Method as in one [of the] claim[s] 1 [to 8], [characterized in that] wherein the coating is formed by electrolysis.

Claim 11 has been amended as follows:

11. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein a coating with a layer thickness of up to 800 μm is produced.

Claim 12 has been amended as follows:

12. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the element with the high neutron capture cross-section, or any of its compounds, is embedded in [the] a metal matrix at a concentration of up to 60% by volume.

Claim 13 has been amended as follows:

13. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein at least periodically during the coating process the dispersion bath is thoroughly mixed.

Claim 14 has been amended as follows:

14. (Amended) Method as in [one of the preceding claims, characterized in that] claim 1, wherein the process is performed in a ceramic or glass vessel.

Claim 15 has been amended as follows:

15. (Amended) Absorber produced by the method [per at least one of the preceding claims, characterized in that it consists of] of claim 1, comprising an inorganic base material and, thereon, a layer composed of an element with a high neutron capture cross-section and an electrolytically or autocatalytically precipitable metallic element, said layer containing an element with a high neutron capture cross-section at more than 20% by volume.